PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.: 09/943,838

Filing Date: August 31, 2001

Applicants: Michael A. D'Annunzio et al.

Group Art Unit: 2144

Examiner: Tam (Jenny) Phan

Title: PERSISTENT LINK FOR BROADBAND MOBILE PLATFORM COMMUNICATIONS SYSTEMS USING PROXY SERVERS

Attorney Docket: 7784-000193

Director of The United States Patent and Trademark Office
P.O. Box 1450
Alexandria, Virginia 22313-1450

DECLARATION UNDER 37 C.F.R. § 1.131

Sir:

WE hereby declare:

1. That we are the inventors who, on August 31, 2001, filed the above-identified application.

2. That our invention was at least conceived and/or reduced to practice in the United States prior to December 17, 2000, the publication date of the article by Chrungoo et al. entitled Smart Proxy: Reducing Latency for HTTP Based Web Transfers Across Satellite Links, as evidenced our invention disclosure. A photocopy of our invention disclosure is attached as Exhibit A.

3. That each of the dates deleted or otherwise blacked out from page 1 of Exhibit A are prior to December 17, 2000.

4. That I have never abandoned, suppressed or concealed my invention.

5. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 the United States Code, and that such willful false statement may jeopardize the validity of the application, and patent issuing thereon, or any patent to which this verified statement is directed.

Date: 6/9/2004

Michael A. D'Annunzio

Date: 6/9/2004

Stanley K. Tazuma

Stanley K. Tazuma

BOEING

INVENTION DISCLOSURE

TITLE OF INVENTION

Proxy Functions Deployed in an Airborne Internet Access Application

Invention Description:

The use of standard proxy functions deployed in an airborne Internet access application that improves the performance of air-to-ground TCP connections. By redirecting selected application messages such as web page requests to an onboard proxy function that in turn communicates to a peer proxy function on the ground to carry out the application request, allows the TCP connection established between the proxy function to be tuned for the high delays and asymmetry of the air-to-ground, satellite-based communications links. Use of persistent TCP connections between proxies reduces the setup time by eliminating round trip delays encountered when connections are established. Application of well known tuning methods can be applied to the TCP stacks of the proxies because a single adiminstrative domain controls both end systems. These well known tuning methods include large window sizes, selective TCP acknowledgements, aggressive slow start, selective ACK discard by the airborne router to avoid ACK congestion on slow reverse link.

THE FOREGOING WAS EXPLAINED TO AND UNDERSTOOD BY ME				INVENTOR(S) SIGNATURE			
WITNESSES SIGNATURES (AT LEAST TWO)	DATE	ORGN. NO.	MAIL STOP	FIRST	M. I.	LAST	DATE
SIGN				SIGN Michael A. D'Amico			
PRINT PHONE				SIGN			
SIGN				SIGN			
PRINT PHONE				SIGN			

DISCLOSURE NO. (ASSIGNED BY PATENT STAFF)	DATE RECEIVED
00-946	[redacted]

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